REMARKS

In response to the above-identified Office Action, Applicants amend the Application and seek reconsideration in view of the following remarks. In this Response, Applicants amend claims 41, 54, 67, and 69, and cancel claims 66, 68, and 70-73. Applicants do not add any new claims. Accordingly, claims 41-65, 67, and 69 remain pending in the Application.

I.   Interview Summary

Applicants note with appreciation the Examiner's willingness to conduct an interview with Applicants on November 5, 2009. Applicants proposed the amendments to claim 41 as set forth above. Applicants further discussed with the Examiner, as set forth below with reference to the rejection of claim 41, how Applicants believe that U.S. Patent Application Publication No. 2004/0153727 filed by Hicken et al. ("*Hicken*") fails to disclose at least the elements of: "reconfiguring the plurality of caches to perform the at least one of the operations of retrieving data from and storing data at the second range of LAs in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs" and "reconfiguring the plurality of caches to redundantly store the data in the first range of LAs in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs," as recited in claim 41. The Examiner indicated that he believed that the amendments to claim 41 appeared to overcome *Hicken*, but that further analysis of *Hicken* would be required to confirm such. The Examiner further indicated that further search and analysis of the prior art would be necessary in determining the allowability of claim 41.

II.   Claims Rejected Under 35 U.S.C. § 102

Claims 41-48 and 52-61 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0153727 filed by Hicken et al. ("*Hicken*"). Applicants respectfully traverse the rejection, at least in view of the amendments independent claims 41 and 54.

To anticipate a claim, the cited reference must disclose each and every element of the rejected claim (*see* MPEP § 2131). Among other elements, amended claim 41 recites the

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elements of: "reconfiguring <u>the plurality of caches to perform the at least one of the operations</u> <u>of retrieving data from and storing data at the second range of LAs</u> in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs" and "reconfiguring <u>the plurality of caches to</u> <u>redundantly store the data in the first range of LAs</u> in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs" (emphasis added). Applicants submit that *Hicken* fails to disclose at least these elements of claim 41.

In making the rejection, the Patent Office does do not Hicken as teaching or suggesting the elements of: "reconfiguring the plurality of caches to perform the at least one of the operations of retrieving data from and storing data at the second range of LAs in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs" and "reconfiguring the plurality of caches to redundantly store the data in the first range of LAs in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs," as recited in claim 41. Moreover, in reviewing *Hicken*, Applicants are unable to discern any sections of *Hicken* disclosing such elements.

Applicants submit that *Hicken* discloses a system that pairs off storage controllers each having a primary cache and a secondary cache (*see Hicken*, paragraph [0011]). The secondary cache of each storage controller mirrors the data in the other respective storage controller's primary cache (*see* Id.). When one of the storage controllers fails, the secondary cache in the non-failed storage controller is flushed of its contents (i.e., the data in the primary cache of the failed storage controller) and the data in the primary cache of the non-failed storage controller is then mirrored in the secondary cache of the non-failed storage controller (*see* Id.). Next, the non-failed storage controller searches for an unpaired storage controller with which to pair off so that the non-failed storage controller can have its primary cache mirrored in the secondary cache of the unpaired storage controller and mirror the secondary cache of the unpaired storage controller (*see Hicken*, paragraph [0044]). Here, it clear that *Hicken* discloses that the storage controllers are only re-paired off when one of the storage controllers in the pair fails. Therefore, *Hicken* does disclose the elements of: "reconfiguring the plurality of caches to perform the at least one of the operations of retrieving data from and storing data at the second

range of LAs in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs" and "reconfiguring the plurality of caches to redundantly store the data in the first range of LAs in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs," as recited in claim 41.

The failure of *Hicken* to disclose each and every element of claim 41 is fatal to the anticipation rejection. Therefore, claim 41 is not anticipated by *Hicken*. Accordingly, Applicants respectfully request withdrawal of the rejection of independent claim 41.

Claims 42-48 and 52-53 depend from claim 41 and include all of the elements thereof. Therefore, Applicants submit that claims 42-48 and 52-53 are not anticipated by *Hicken* at least for the same reasons as claim 41, in addition to their own respective features. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 42-48 and 52-53.

Applicants submit that claims 54-61 each recite elements similar to claim 41 discussed above. Therefore, Applicants submit that claims 54-61 are not anticipated by *Hicken* at least for the same reasons as claim 41, in addition to their own respective features. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 54-61.

III.   Claims Rejected Under 35 U.S.C. § 103

A.   Claims 49-51 and 62-65

Claims 49-51 and 62-65 stand rejected under 35 U.S.C. § 103(a) as being obvious over *Hicken* in view of the article "Consistent Hashing and Random Trees: Distributed Caching Protocols for Relieving Hot Spots on the World Wide Web," in the Proceedings of the 29th ACM Symposium on Theory of Computing, pages 654-663 authored by Karger et al. ("*Karger*"). Applicants respectfully traverse the rejection, at least in view of the amendments to claims 41 and 54 discussed above.

To render a claim obvious, the cited references must teach or suggest each and every element of the rejected claim (*see* MPEP § 2143). Claims 49-51 and 62-65 depend from claims 41 and 54, respectively, and include all of the elements thereof. In rejecting claims 49-51 and 62-65, the Patent Office characterizes *Hicken* similar to the rejection of claims 41 and 54 discussed above. Applicants have discussed above the failure of *Hicken* to disclose at least the elements of: reconfiguring the plurality of caches to perform the at least one of the operations

of retrieving data from and storing data at the second range of LAs in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs" and "reconfiguring the plurality of caches to redundantly store the data in the first range of LAs in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs," as recited in claim 41 and similarly recited in claim 54, and submit that such discussion is equally applicable to claims 49-51 and 62-65 because of their respective dependencies from claims 41 and 54. Therefore, *Hicken* fails to teach or suggest each and every element of claims 49-51 and 62-65. The Patent Office relies on the disclosure in *Karger* to cure the defects of *Hicken*; however, Applicants submit that *Karger* fails to cure such defects.

In making the rejection, the Patent Office does not cite *Karger* as teaching or suggesting the elements of: reconfiguring the plurality of caches to perform the at least one of the operations of retrieving data from and storing data at the second range of LAs in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs" and "reconfiguring the plurality of caches to redundantly store the data in the first range of LAs in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs" as recited in claims 49-51 (via claim 41) and similarly recited in claims 62-65 (via claim 54). Moreover, in reviewing *Karger*, Applicants are unable to discern any sections of *Karger* teaching or suggesting such elements. Therefore, *Karger* fails to cure the defects of *Hicken*.

The failure of the combination of *Hicken* and *Karger* to teach or suggest each and every element of claims 49-51 and 62-65 is fatal to the obviousness rejection. Therefore, claims 49-51 and 62-65 are not obvious over *Hicken* in view of *Karger*. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 49-51 and 62-65.

B.   Claims 66-73

Claims 66-73 stand rejected under 35 U.S.C. § 103(a) as being obvious over *Hicken* in view of U.S. Patent No. 6,898,666 issued to Henry et al. ("*Henry*"). Applicants have cancelled

claims 66, 68, and 70-73, and respectfully traverse the rejection of claims 67 and 69, at least in view of the amendments to claims 67 and 69.

To render a claim obvious, the cited references must teach or suggest each and every element of the rejected claim (*see* MPEP § 2143). Claims 67 and 69 have been amended to depend from claims 54 and 41, respectively, and include all of the elements thereof. In rejecting claims 67 and 69, the Patent Office characterizes *Hicken* similar to the rejection of claims 41 and 54 discussed above. Applicants have discussed above the failure of *Hicken* to disclose at least the elements of: reconfiguring the plurality of caches to perform the at least one of the operations of retrieving data from and storing data at the second range of LAs in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs" and "reconfiguring the plurality of caches to redundantly store the data in the first range of LAs in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs," as recited in claim 41 and similarly recited in claim 54, and submit that such discussion is equally applicable to claims 67 and 69 because of their respective dependencies from claims 41 and 54. Therefore, *Hicken* fails to teach or suggest each and every element of claims 67 and 69. The Patent Office relies on the disclosure in *Henry* to cure the defects of *Hicken*; however, Applicants submit that *Henry* fails to cure such defects.

In making the rejection, the Patent Office does not cite *Henry* as teaching or suggesting the elements of: reconfiguring the plurality of caches to perform the at least one of the operations of retrieving data from and storing data at the second range of LAs in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs" and "reconfiguring the plurality of caches to redundantly store the data in the first range of LAs in response to the inoperability while continuing to perform at least one of the operations of retrieving data from and storing data at the remaining range of LAs" as recited in claim 69 (via claim 41) and similarly recited in claim 67 (via claim 54). Moreover, in reviewing *Henry*, Applicants are unable to discern any sections of *Henry* teaching or suggesting such elements. Therefore, *Henry* fails to cure the defects of *Hicken*.

The failure of the combination of *Hicken* and *Henry* to teach or suggest each and every element of claims 67 and 69 is fatal to the obviousness rejection. Therefore, claims 67 and 69 are not obvious over *Hicken* in view of *Henry*. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 67 and 69.

CONCLUSION

In view of Applicants' amendments and remarks, it is respectfully submitted that the Patent Office's rejections have been overcome. Accordingly, Applicants respectfully submit that the Application, as amended, is now in condition for allowance, and such allowance is therefore earnestly requested. Should the Patent Office have any questions or wish to further discuss this Application, Applicants request that the Patent Office contact the Applicants' attorney at the below-listed telephone number.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this Application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 090449 for any fee which may be due.

Respectfully submitted,

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